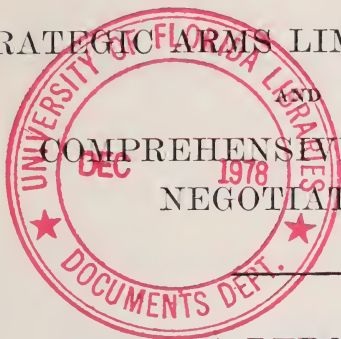


STRATEGIC ARMS LIMITATION TALKS  
AND  
COMPREHENSIVE TEST BAN  
NEGOTIATIONS



A REPORT  
TO THE  
COMMITTEE ON FOREIGN RELATIONS  
UNITED STATES SENATE  
BY  
SENATOR FRANK CHURCH



[SANITIZED AND MADE PUBLIC SEPTEMBER 1978]

Printed for the use of the Committee on Foreign Relations

U.S. GOVERNMENT PRINTING OFFICE  
WASHINGTON : 1978

## COMMITTEE ON FOREIGN RELATIONS

JOHN SPARKMAN, Alabama, *Chairman*

FRANK CHURCH, Idaho

CLAIBORNE PELL, Rhode Island

GEORGE McGOVERN, South Dakota

DICK CLARK, Iowa

JOSEPH R. BIDEN, Jr., Delaware

JOHN GLENN, Ohio

RICHARD STONE, Florida

PAUL S. SARBANES, Maryland

MURIEL HUMPHREY, Minnesota

CLIFFORD P. CASE, New Jersey

JACOB K. JAVITS, New York

JAMES B. PEARSON, Kansas

CHARLES H. PERCY, Illinois

ROBERT P. GRIFFIN, Michigan

HOWARD H. BAKER, Jr., Tennessee

NORVILL JONES, *Chief of Staff*

ABNER E. KENDRICK, *Chief Clerk*

NOTE.—Sections of this report have been deleted at the request of the executive branch. Deleted material is indicated by the notation “[Deleted.]”

## LETTER OF TRANSMITTAL

---

UNITED STATES SENATE,  
COMMITTEE ON FOREIGN RELATIONS,  
*Washington, D.C., August 11, 1978.*

Hon. JOHN SPARKMAN,  
*Chairman, Committee on Foreign Relations,*  
*U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: I am pleased to submit to you the following report on my recent visit to the Strategic Arms Limitation Talks (SALT) and the comprehensive test ban negotiations being held in Geneva, Switzerland.

These two negotiations are of critical importance to the United States. Their outcome will have a profound impact on our future strategic directions and programs and upon our efforts to control the spread of nuclear explosive devices.

The Committee on Foreign Relations probably will have to deal with the treaties reached as a result of these talks early in the next session. I hope that this report will be of value to the Committee in providing an assessment of the present state of both negotiations and prospects for successful conclusion.

Sincerely,

FRANK CHURCH.

(III)



Digitized by the Internet Archive  
in 2013

# CONTENTS

---

	Page
Letter of transmittal.....	III
Introduction.....	1
Strategic arms limitation talks:	
Background.....	2
Major issues.....	3
Conclusions.....	7
Comprehensive test ban.....	11



## INTRODUCTION

---

Before leaving for Geneva, I reviewed information provided to the Committee over the last several months by Secretary of State Vance and the Director of the Arms Control and Disarmament Agency (ACDA), the Hon. Paul C. Warnke. In addition, I received briefings by representatives of the National Security Council, the Department of Defense, and ACDA.

I left for Geneva on June 28 and spent the better part of two days there. I was accompanied by George W. Ashworth of the Committee staff. While in Geneva, I had extended discussions with Hon. Ralph Earle II, Alternate Chairman of the U.S. delegation to SALT; Minister Frank M. Perez, the representative of the Department of State; Lt. Gen. Edward Rowny, the representative of the Joint Chiefs of Staff, and other members of the U.S. SALT delegation and staff, including Thomas Graham, Jr., the legal counsel to the delegation and Col. Norman Clyne, the delegation's executive secretary.

On the first day of my visit, I attended a plenary session of the two sides. Ambassador Earle read a statement presenting the U.S. position on key resolved issues. The Chairman of the Soviet delegation, Mr. Vladimir S. Semenov, Deputy Minister of Foreign Affairs, gave the Soviet view. Following the plenary session, the two sides broke up into smaller discussion groups. Minister Perez and I met with Mr. Viktor P. Karpov of the Ministry of Foreign Affairs; and, Mr. Viktor J. Smolin, also of the Ministry of Foreign Affairs and a senior Soviet adviser to SALT. In our discussions, I emphasized the importance of development of a comprehensive data base on the strategic forces of the two sides. Such an agreed informational base would serve to reassure the American side and be of considerable value in the Senate ratification process.

At other times during my two day visit, I also emphasized the importance attached in the Senate to adequate verification of a SALT agreement. I also noted that passage of the Panama Canal Treaties had been impeded because of questions raised about conformity of the English and Spanish texts of the treaties, and expressed my concern that there be no such difficulties in connection with SALT.

Following these discussions, I met at lunch with Minister Semenov; Col. Gen. Ivan I. Beletsky, the senior military member of the Soviet SALT delegation; and, Academician Aleksander N. Shchukin, a member of the Soviet SALT delegation.

On the second day I met with Dr. Gerald W. Johnson, the representative of the Office of the Secretary of Defense on the SALT delegation and the Alternate Chairman of the comprehensive test ban negotiations, and with Alan F. Neidle, who is also an Alternate Chairman of the comprehensive test ban negotiations. Following that meeting, I attended a meeting of the United States comprehensive



test ban negotiating team. I then met with Mr. Andronik M. Petrovskyants, Chief of the Soviet comprehensive test ban delegation, and Chairman of the Soviet State Committee for the Utilization of Atomic Energy; and, Mr. Roland M. Timerbaev, Deputy Chief of the Soviet comprehensive test ban delegation. Before departing, I had final discussions on SALT issues with Ambassador Earle.

I would like to extend my appreciation to Ambassador Earle and Dr. Johnson and their staffs, as well as Col. Clyne and Mrs. Teena Mayers, who skillfully coordinated the schedule for my visit. Due to their efforts, I believe that the discussions were productive and worthwhile.

## STRATEGIC ARMS LIMITATION TALKS

### BACKGROUND

The first agreements limiting strategic arms comprised SALT I, which included a treaty limiting anti-ballistic missile systems of the two sides and, an Interim Agreement limiting strategic offensive arms. The SALT I accords were reached in May 1972, and the Senate consented to ratification of the Anti-Ballistic Missile (ABM) Treaty on August 3, 1972. The treaty entered into force on October 3, 1972. The Interim Agreement was approved by the Congress by joint resolution on September 30, 1972, and also entered into force on October 3, 1972.

At the time SALT I was approved, it was recognized that, while the ABM Treaty was a very significant achievement, the limitations on strategic offensive arms were, at best, modest. The intercontinental ballistic missile (ICBM) and submarine-launched ballistic missile (SLBM) forces of the two sides were frozen at their then current levels of deployment, counting those launchers under construction. There were no limitations placed upon the third major strategic force on each side—the intercontinental bombers.

The new strategic arms discussions began in 1973, and led to the Vladivostok Accord of November 1974, which established ceilings of 2,400 on ICBM's, SLBM's, and heavy bombers, with a sub-ceiling of 1,320 on ICBM's and SLBM's equipped with multiple independently targetable reentry vehicles (MIRV's). The Vladivostok Accord was never finalized. In the absence of a further agreement, the two sides continued to negotiate and the Interim Agreement expired on October 3 last year without any binding new agreement in force. At that time, the United States declared

. . . its intention not to take any action inconsistent with the provisions of the Interim Agreement . . . and with the goals of these ongoing negotiations provided that the Soviet Union exercises similar restraint.

The Soviet Union made a similar statement.

The proposed SALT II agreement has three principle elements:

- A treaty to last until 1985, embodying basically the Vladivostok Accord with some reductions below the Vladivostok ceilings;
- A protocol to last about three years, temporarily limiting certain aspects of cruise missiles, new types of ballistic missiles, and mobile ICBM's; and,
- Principles and guidelines for SALT III.



According to the Department of State, the SALT II treaty will provide for:

- An equal aggregate limit on the number of strategic nuclear delivery vehicles—ICBM's, SLBM's, heavy bombers and ASBM's. Initially, this ceiling will be 2,400 as agreed at Vladivostok. The ceiling will subsequently be lowered to 2,250;
- An equal aggregate limit of 1,320 on the total number of MIRVed ballistic missiles and heavy bombers with long-range cruise missiles;
- A limit of 1,200 on the total number of MIRVed ballistic missiles;
- A limit of 820 on MIRVed ICBM's;
- A ban on construction of additional fixed ICBM launchers, and on any increase in the number of fixed heavy ICBM launchers;
- A ban on certain new types of strategic offensive systems such as ballistic missiles on surface ships;
- An agreement to exchange data on numbers of constrained weapons systems; and
- Advance notification of certain ICBM test launches.

The proposed protocol would include the following provisions:

- A ban on deployment of mobile ICBM launchers and on the flight-testing of ICBM's from such launchers;
- Limitations on the flight-testing and deployment of new types of ballistic missiles; and
- A ban on the flight-testing and deployment of cruise missiles capable of a range in excess of 2,500 kilometers, and on the deployment of cruise missiles capable of a range in excess of 600 kilometers on sea or land-based launchers.

As of this point, substantial progress has been made in resolving remaining issues. If President Carter and President Brezhnev desire to do so, they could achieve a new SALT agreement later this year. The Senate could then take up the treaty and protocol in the next session.

I do not see any advantage in drawing out the negotiations further. I believe that, on balance, the prospective new SALT agreement and protocol are in the national interests of both sides and will enhance the national security of the United States. Further unnecessary delay may jeopardize the prospects of agreement. We cannot ignore the possibility that President Brezhnev may pass from office, and that prospects for a new SALT agreement might be dashed. The new agreement is so nearly completed, and its implications have been explored so thoroughly, that I see no reason to risk the destruction of SALT through further delay.

#### MAJOR ISSUES

Here are some of the remaining issues now being discussed:

##### *New Types of ICBM's*

The sides are discussing the question of how to limit new types of ICBM's. [Deleted.]

If the protocol ban on mobile missile deployment were continued, the treaty still would allow deployment by the United States of M-X missiles in existing silos. If the mobile ban were not continued, there

would be no limitation on the basing of M-X. Although it has not done so, the Soviet Union is now capable of deploying a mobile intercontinental missile, the SS-16. [Deleted.]

I believe that the two sides would be best served if they could agree not to deploy any new land-based missiles for the period of the treaty. Since the United States cannot have the new M-X missile available for deployment much before the expiration of the treaty, our options would remain open. The concept of M-X missiles on mobile launchers in trenches has been virtually abandoned due to questionable effectiveness and high costs, and we are unsure how to base the M-X. It seems to me that there are reasons to conclude that an effective ban either during the period of the protocol or during the period of the treaty would give us time to study further whether we do indeed need the M-X, and if so, how we would base the missile. At present, a multiple aim point (MAP) concept is being explored within the executive branch. Under this concept, a certain number of launchers for the M-X would be built which could be moved about among a much larger number of hardened shelters—thus increasing Soviet targeting problems and purportedly reducing land-based missile vulnerability. It is conceivable that a means could be found in which such a deployment could occur and still be within the restrictions imposed by SALT II. However, such a method of deployment could undermine the established SALT concept that deliberate concealment is not permitted. Since concealment is, of course, the purpose of this proposal, we should be fully aware of all the verification implications of such a decision before taking such a fateful step. Aside from the massive expenditures involved, I am not convinced, nor are many others closely associated with the SALT process, that sufficient attention has been paid to the national security problems which might emerge should the Soviet Union take comparable action, adopting its own mode of deceptive deployment of land-based missiles. Beyond that, such a proposal would involve considerable verification problems which—even if found to be surmountable—must be carefully studied so that the appropriate safeguards can be built into a new SALT treaty.

Although the Soviets are aware of our interest in multiple aim point basing of land-based missiles through reading the American press, our delegation has not broached the issue. However, this matter could become a major stumbling block.

#### *New Types of SLBM's*

[Deleted.]

#### *Backfire Bomber*

Since 1975, the Soviet delegation has refused to discuss this major issue in Geneva in any specific way on the ground that the Backfire is not a strategic weapon. It is likely that the Backfire bomber questions would be resolved in the very final stages of negotiations—probably at a summit.

The Backfire bomber is now being deployed for possible use against the NATO countries or China, and in naval aviation. It has a limited ability to strike the United States—just how limited that ability is remains a matter of controversy. If the Soviets could not refuel Backfire bombers and were prevented from launching planes from Arctic bases, Backfires attacking the United States would have to fly at

subsonic speeds and high altitude, and on a fairly direct course. Backfires attacking in that fashion would be quite vulnerable to air defense. The key questions surrounding the Backfire are its range and capability, the verifiability of any agreed limitations, and whether the United States should expand air defenses beyond existing levels. Given the fact that the ABM Treaty guarantees the first-line strategic forces of the two sides—the ballistic missiles—an unimpeded trip to their targets, large sums spent to defend against Backfire do not appear to make much sense. However, defense against Backfire will be an option open to us in our annual budgeting for defense, and that is a decision which can be made independently of SALT.

In my view, the United States should attempt to place definite limits on Backfire production and deployment. However, I do not believe that the Soviets would ever agree to have the Backfire counted against the total, and I concur with the judgment of many associated with SALT that any effort to push the Soviets to the wall on Backfire could reopen the issue of our own Forward Based Systems in Europe, which the Soviet side has agreed not to count in this negotiation.

### *Expiration of the Protocol*

With respect to the term of the protocol and the time periods for dismantling and destruction, the Soviets have proposed longer duration and later effective dates, while the United States seeks shorter duration and earlier effective dates. For instance, the United States is now seeking agreement on December 31, 1980, as a termination date of a protocol.

[Deleted.] In other words, the United States is trying to get the reductions completed by the end of the protocol period, while the Soviet Union wants the reductions to be carried out after the expiration of the protocol. It should be possible to reach a mutually acceptable middle ground on this matter.

### *Non-Circumvention*

The two sides have agreed on the handling of the provision on non-circumvention of the treaty and protocol, which affects the degree to which the United States can help its NATO allies with their strategic programs. [Deleted.]

Nevertheless, the committee should explore this matter thoroughly in order to make sure that allied interests are protected and that this issue will not be one of continuing controversy following the treaty.

### *Modernization*

The United States has taken the position that limitations on modernization of ballistic missiles should concentrate on things that can be easily verifiable. [Deleted.]

While these provisions will be more easily verifiable than more comprehensive limitations on qualitative improvements would have been, it is clear that the way will remain open for both sides to continue to improve their existing forces. As a result, there is little doubt that the qualitative arms race will go on.





## CONCLUSIONS

---

On the basis of my own previous study and my recent discussions in Geneva, I believe that the emerging three-part SALT agreement would be decidedly in the national security interests of the United States. Some of the reasons which lead me to this conclusion follow:

The maximum limit of 2,250 on strategic delivery systems will force the Soviet Union to dismantle about 300 of its missile launchers and/or heavy bombers. This reduction is even more striking by comparison with what the Soviets might add without SALT. The Department of Defense projects more than 3,000 Soviet strategic weapons by 1985, without a treaty. If so, then we can correctly credit SALT II with removing the threat an additional 800 Soviet intercontinental bombers and/or ballistic missile launchers would pose. By contrast, the ceiling will not force us to make any reductions in the number of our strategic weapons. Indeed, if we choose to do so, we can add new weapons in sufficient numbers so that our total force would equal that of the Soviets.

The ceiling of 1,200 on launchers of missiles with MIRV's will constrain the United States only slightly. However, it will hold the Soviet side to a total hundreds below what we believe they would otherwise deploy.

We benefit most immediately from the expected allowance above the MIRV ceiling of 120 heavy bombers equipped with air-launched cruise missiles (ALCM's), as we are well along with our cruise missile program.

Since a far smaller proportion of our forces are on land, the Soviet side will be most affected by the limit of 820 on launchers of land-based ICBM's with MIRV's. In fact, our intelligence believes that the Soviets would deploy hundreds more land-based missiles with MIRV's by 1985 without a treaty.

The treaty limitations may cause the Soviets to give greater emphasis to sea-based forces at the expense of land-based forces, a move which will be inherently less threatening and more stabilizing.

The mobile missile provisions in the protocol are decidedly in our interest. A Soviet mobile missile now ready to be deployed, the SS-16, would be banned for the period of the protocol, while the development of our own mobile missile, the M-X, would not be constrained, should we decide to proceed with it, since its deployment is limited only for the protocol period.

The cruise missile provisions in the protocol will allow us to proceed as quickly as we are able with cruise missile development and deployment. The Soviets will not immediately derive similar benefits, since they have no comparable program.

Against this background, one might ask, what is in this package for the Soviet Union that does not increase the danger to us?

First, the land-based missile forces of the Soviet Union possess a greater throw-weight and megatonnage than the comparable forces of the United States. This will compensate them for the threat posed by us of our far superior submarine missiles and our larger force of penetration bombers equipped with ALCM's. Second, SALT II, by incorporating the principle of equal aggregates, will acknowledge the fact that the Soviet Union is the relative equal of the United States in strategic nuclear arms. Third, the new agreement will save the Soviets—as it will us—the heavy financial burden and the needless diversion of resources which would be entailed in unrestrained competition.

The latter point should be very important to both sides. We have each reached a point at which there is nothing to gain from a continued nuclear arms race. Neither side is going to let the other get either real or perceived superiority. The Soviets know we are capable of running them an arms race until their tongues hang out. They could do the same to us. Why should we want that?

Nevertheless, some have suggested that the United States should unilaterally break off the SALT II negotiations to protest the political trials of Soviet dissidents, Anatoly Shchiransky and Aleksandr Ginzburg. The Carter administration says it is opposed to using SALT as a tool for pressuring the Kremlin on its internal human rights policies. However, the President, himself, may have opened the door to this kind of linkage, when he suggested that the successful conclusion of SALT II could be jeopardized by Soviet and Cuban activities in Africa. Once the concept of linkage between strategic arms negotiations and other extraneous political developments has been legitimized, it is inevitable that this same principle will be invoked by others to argue in favor of suspending the arms control talks for a myriad of reasons. In the process, the hope of ever negotiating an end to the nuclear arms race may fade altogether.

If we persist in tying SALT to Soviet behavior in the Horn of Africa, in Central Africa, or even in Moscow, we are quite unlikely to find that perfect moment in the flow of events at which we can say, "At last, our adversary, the Soviet Union, is comporting itself to our satisfaction. Now, we can discuss the conclusion of a SALT agreement."

And if we hold the Kremlin responsible for Castro's every move in Angola or Ethiopia, then what is to stop the Soviets from arguing the SALT cannot proceed until our allies, the French and Belgians, pull out of Zaire or Chad? Once you espouse the theory of linkage, where does it end?

Finally, the notion that SALT II can be held hostage for changes in Soviet behavior in other areas flies in the face of the fundamental precept that makes the arms limitation talks possible at all; that is, that an agreement to limit strategic arms equally serves the vital interests of both powers, and further, is mutually perceived to do so. The linkage theory presumes that an agreement is more in the interest of the Soviets than of the United States, and that we can therefore "punish" the Kremlin by delaying conclusion of the talks. But if the SALT talks better serve the Soviet Union than our own country, why should we engage in them at all?

For these reasons, it makes no sense to hold SALT II hostage to Soviet good behavior elsewhere. By the same token, we should not

anticipate that SALT will improve Soviet behavior. Such an unwarranted expectation could be quickly dashed, and we would then be tempted to place the blame incorrectly on SALT.

The most we have a right to expect of SALT, in terms of our broader relationship with the Soviet Union, is that it may help, largely by arresting the deterioration currently in evidence, and to recreate an atmosphere in which the two sides can work to contain their differences. Conversely, failure to achieve a strategic arms limitation agreement could push the two sides further back into the abyss of the Cold War.

Beyond the matter of United States-Soviet relations, it seems to me that there are three principal benefits to good strategic arms limitation: First, it can enhance our national security—something a re-kindled nuclear arms race cannot do. Second, the funds saved through nuclear arms limitation could be used to meet other, more pressing conventional arms needs, or to forestall more extensive deficit financing. Finally, strategic arms limitation can reinforce and give credence to our efforts to convince other nations to avoid the tremendous dangers of nuclear proliferation.

SALT is the only realistic alternative to a senseless nuclear arms race which neither side can win. We have already assembled a nuclear arsenal of such staggering proportions that the United States could destroy the Soviet Union several times over, even after enduring an attack upon itself. This ability to strike back devastatingly if attacked—an ability the Soviet Union also possesses—has brought the two sides to a state of mutual deterrence, and a suicidal holocaust has thus far been averted.

The development that could expand the present danger and raise the spectre of nuclear war would be an attempt—or what was seen as an attempt—by either side to develop the ability to strike first and somehow survive the ensuing conflict. Many believe that the achievement by either side of such a first strike capability could have a disastrous political effect, even if it didn't lead to war, by subjecting the weaker side to bullying and blackmail. Each side fears letting the other get ahead to such a dominant degree.

Thus, the psychology of the arms race is such that without a mutual agreement between the United States and the Soviet Union to live within certain proscribed limits, the race will escalate—even though it is obvious that neither government could ever reach a point at which it would feel secure enough to stop. In short, the only practical way to preserve stability, enhance our national security and, simply put, keep the lid on, is through strategic arms limitation agreements.

Secretary of Defense Harold Brown said in his presentation this year to the Senate Armed Services Committee:

We want mutual deterrence to be so stable that it cannot be upset in a crisis. We want it to be so well designed that neither side will be tempted to upset it over the longer term. These are the two essential types of strategic stability that we seek.

There is no question in my mind that strategic arms limitation agreements are indispensable if we are ever to achieve this kind of strategic stability.



The value of arms limitation is much more obvious when we consider how indefatigably we and the Soviets have pursued the other path—only to achieve a standoff. We initiated the nuclear weapons age in 1945 and outdistanced the Soviets throughout the 1950's. We maintained both a quantitative and qualitative lead in the 1960's, and we still hold a qualitative lead. But from the start, the Soviet catch-up was only a matter of time.

In 1966, the Soviet Union had 244 launchers of intercontinental ballistic missiles. We were then approaching our present total of 1,054 land-based launchers. The Soviets had 29 launchers of submarine-launched ballistic missiles and we had almost finished our program of 656.

In the late 1960's, with assembled forces more than adequate for deterrence, we decided to stick with our missile totals, at least for the near future. Meanwhile, the Soviet Union was coming from behind, and its land-based missile force exceeded ours by the end of the decade. Their submarine force grew larger than ours a few years ago.

But we were not idle while the Soviet Union was increasing its missile totals. In 1970, we began installing MIRV's atop both our land-based Minuteman missiles and our submarine-based Poseidon missiles. We also installed less sophisticated multiple warheads on our Polaris submarine missiles. The Soviet Union did not start MIRVing its land-based missiles until 1975, and only recently acquired the ability to deploy MIRV's on submarine-based ballistic missiles. By comparison, every one of our submarine-based ballistic missiles is equipped with a multiple warhead.

As a result of our earlier start and better technology, we presently possess more than twice as many deliverable strategic nuclear warheads as the Soviet Union. Our analysts tell us that we will maintain a warhead lead for the foreseeable future.

Some discount this lead by pointing out that the Soviets have developed generally larger ICBM's and more of them—about 1,400 compared to our 1,054. They have also deployed more submarine-launched ballistic missiles, although we have built more bombers. The total forces, as measured by the number of strategic delivery vehicles, compare at more than 2,500 for the Soviets to about 2,100 for us. But this numerical disparity is not, in itself, a cause for concern, since our current MIRVed forces are capable of hitting twice as many targets as theirs, each with a punch many times larger than the blasts which destroyed Nagasaki and Hiroshima.

If we were to target our nuclear arsenal upon Soviet cities, we have enough weapons now to strike the 450 largest centers with 20 weapons each. The Soviet Union could target the same number of American cities with 10 such weapons. This does not even take into consideration the thousands of additional medium- and short-range weapons each side has in systems not covered by SALT, as well as the considerable payload of strategic bombers, which were not included in SALT I.

One of our B-52's carries more explosive punch than all the bombs dropped by the allies on the Axis powers in World War II. The peripheral systems on either the American or Soviet side—the respective nuclear forces not covered by SALT—comprise arsenals of themselves larger than the entire nuclear force of the third, fourth, and fifth nuclear powers.

It is almost impossible to comprehend just how devastating a nuclear war could be. Several years ago, for instance, the Pentagon floated a story that the Soviets could so confine an attack on our land-based missiles as to kill only 800,000 people. A follow-up study conducted at the request of the committee resulted in revised estimates showing that up to 22 million could be killed, even if the Soviets attacked our Minuteman bases alone. The damage would be mammothly larger if the Soviets also attacked our population centers, and the same is true if we attacked theirs.

Not only can strategic arms limitation help stave off such a suicide, it can also earn us a huge dividend in hard cash. The Senate Budget Committee staff has calculated the 15-year incremental cost of potential strategic options. With SALT II constraints on both sides, the committee staff estimates that a buildup to maximum allowable force levels would cost us from \$25 to \$30 billion. But a force buildup which might be reasonable envisioned without SALT could cost from \$90 to \$100 billion!

We have promised time and again, for example, in the Limited Test Ban Treaty of 1963, the Non-Proliferation Treaty of 1968, and in SALT I to strive to bring the nuclear arms race to an end. If we fail to move in this direction, we can hardly expect other nonnuclear nations to continue to show restraint. We should not forget that 103 nations have pledged in the Non-Proliferation Treaty to forego nuclear weapons. Can we reasonably expect them to keep their pledge to do nothing if we and the Soviets fail to keep ours? We know that the proliferation of nuclear weapons could pose an even more precarious threat to our national security than the one we face today.

For these compelling reasons, if the new SALT agreement takes the form now envisaged, it will merit the support of all Americans who understand the wisdom of pursuing national security objectives through arms limitation agreements.

### COMPREHENSIVE TEST BAN

Fifteen years ago, in 1963, the United States, the Soviet Union and Great Britain agreed to a Limited Test Ban Treaty banning all but underground nuclear explosions. At that time, the parties pledged themselves to work toward a complete end to nuclear testing. In 1974, at a Moscow summit meeting, former President Nixon reached agreement with President Brezhnev for a Threshold Test Ban Treaty (TTBT) which expanded the existing limitations on testing to preclude any underground nuclear explosions above the level of 150 kilotons. (For comparative purposes, the bombs which destroyed Hiroshima and Nagasaki were each well under 20 kilotons). However, the TTBT was not submitted to the Senate, pending agreement on restricting so-called "peaceful" nuclear explosions. Such an agreement would prevent nuclear explosions, declared to be "peaceful," from being used to circumvent the provisions of the TTBT. To allow time for the further negotiations on a Peaceful Nuclear Explosions Treaty (PNET), the two sides decided to set an effective date for the TTBT of March 31, 1976. When that date arrived, even though the peaceful explosions agreement had not been achieved, the two sides voluntarily ceased testing above 150 kilotons and have lived under that limitation since. A PNET was finally worked out in May 1976, and the two treaties were submitted to the Senate that July.

In 1977, the Carter administration asked that the Committee take up the two treaties, and four days of hearings were held. On September 20, 1977, the Committee, unanimously by voice vote, ordered the two treaties favorably reported. Following further discussion a week later, the Committee decided to take no further action on the treaties at that time. As time passed, and the comprehensive test ban talks progressed, executive branch interest in action on the two treaties began to wane. It appeared doubtful whether the two treaties would be supported effectively if they came to the floor. Accordingly, on June 13, 1978, the Committee reconsidered the vote by which the treaties were approved and they were returned to the Committee calendar.

As a result, the United States, Soviet Union, and Great Britain are now adhering to the terms of the Limited Test Ban Treaty of 1963, and the United States and the Soviet Union are each conforming unilaterally to the terms of the TTBT, even though it has not been ratified.

The Soviet Union, Great Britain, and the United States have been discussing a comprehensive test ban on all nuclear explosions. [Deleted.] The treaty would have a fixed duration, [deleted].

Some—both in and out of government—believe strongly that nuclear testing should be continued, at least in a range up to perhaps 10 kilotons. They argue that continued testing may prove necessary to monitor reliability of our existing arsenal and to avoid a situation in which the United States would refrain from testing while the Soviets might get by with undetected testing. The countering arguments are that weapons design is a mature science, that the present high reliability of the United States nuclear stockpile can be adequately maintained without nuclear testing through vigorous safeguards programs, and that the risk of Soviet cheating at militarily significant levels would be miniscule.

At present, the issues under discussion by the negotiating teams include, first, the duration of the treaty; second, how best to handle inspections to assure compliance; and third, the extent and characteristics of the proposed national seismic station network to be implanted in each country to assist in verification of compliance.

Given the long-standing suspicions of the Soviet Union about inspection of Soviet territory and our own insistence that any inspection system must be comprehensive, it is encouraging that the two sides are discussing earnestly the issue of on-site inspections and are engaged in detailed consideration of procedures to permit thorough inspections to be carried out in the event of circumstances raising doubts about treaty compliance. [Deleted.]

[Deleted.]

The Soviet Union has accepted, in principle, the concept of a network of seismic stations to be placed on its territory. The United States is seeking [deleted] such stations, which would be tamper-proof and would provide detailed information on seismic activities. The Soviet Union appears willing to accept [deleted]. It should be possible to reach agreement on numbers and technical characteristics of the stations.

First models of a U.S. design of such stations are to be available this fall, and an operational network, could be installed within about two years. Such stations apparently would drive the detection level down to very small explosions. According to experts, outside detection equipment plus the stations would make it very risky for the Soviets to test



above 1 kiloton in some places, or test at all in other places. The risk of detection would be tremendously increased by these stations, and their deployment would make it extremely doubtful that the Soviet Union could get by with a patter of clandestine testing which would have any military significance.

[Deleted.]

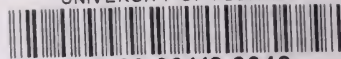
Assuming these things can be worked out, a treaty may be settled upon late this year or early next year. [Deleted.]

I was impressed by the diligence and lack of obfuscation demonstrated by both sides in these negotiations. The Soviet Union has apparently backed away from insisting upon the right to conduct so-called "peaceful" nuclear explosions during the life of the treaty—a major stumbling block to earlier efforts to achieve a comprehensive treaty.

A comprehensive test ban is a tremendously significant endeavor, first, because it would serve to help put a cap on the arms race and thus reinforce our own national security and, second, because it would encourage non-nuclear countries to continue to abstain from building nuclear weapons of their own, in the belief that the nuclear Titans had at least commenced to slacken a senseless arms race which threatens the entire world.



UNIVERSITY OF FLORIDA



3 1262 09118 9042